



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,240	08/14/2006	Tsuyoshi Yamaguchi	2006_1208A	6940
52349 7590 06/16/2010 WENDEROTH, LIND & PONACK L.L.P. 1030 15th Street, N.W. Suite 400 East Washington, DC 20005-1503				
EXAMINER				
BAIG, ADNAN				
ART UNIT		PAPER NUMBER		
2461				
NOTIFICATION DATE		DELIVERY MODE		
06/16/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ddalecki@wenderoth.com
coa@wenderoth.com

Office Action Summary

Application No.

10/589,240

Applicant(s)

YAMAGUCHI ET AL.

Examiner

ADNAN BAIG

Art Unit

2461

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 7-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 7-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 7-9, 12-13, and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeshima et al US (2002/0032025) in view of Moriguchi et al. USP (6,680,903)

Regarding Claim 1, Maeshima discloses a terminal (**see Fig. 1, terminals 100-107**), used in a communication system comprising a control station and a plurality of terminals (**see Fig. 1**), each of the terminals operable to access a communication medium (**see Para [0038]**) in accordance with a control frame (**see, Fig. 3**) issued by the control station, and capable of substituting for the control station (**see Para [0047] lines 1-7**), the terminal comprising:

a detection portion configured to detect the control frame, (**Referring to Fig. 3, Maeshima illustrates a control frame transmitted from a master control station to slave terminals (see Para [0045] lines 8-14) where in the instance a control frame is not detected (i.e., inconvenience) from the master control frame, the slave terminals are capable of becoming the master control station (see Para [0013]) which means each of the terminals must be able to detect the control frame periodically , See Para [0087] lines 4-7 & Fig. 15 step S21).**

which is periodically transmitted from the control station (see Para [0005] & Para [0078] lines 6-12),

the control frame containing control information indicating a time period in which access to the communication medium is permitted; (see Para [0005] & [0045-0046])

an issuance portion configured to periodically issue a substitute frame created by using the control information contained in the control frame most recently detected and including the same information as the control information, and further configured to cause the terminal to operate as a substitute control station, which guarantees access of the plurality of terminals to the communication medium, when the control frame is not newly detected before a predetermined first time period elapses (see Fig. 16, step S40)

after the control frame has been most recently detected by the detection portion, (**See Para [0047-0048] & Para [0080-0082] i.e., when it is determined that the stand-by time (i.e., *predetermined first time period*) registered in the station has elapsed in the determining of step S40, an operation necessary as the central control station is performed. Specifically periodic transmission of the descending management information (i.e., *substitute fame issued periodically*) is started to carry out the management of information transmission (i.e., *control fame most recently detected*) in the network at the station).**

Maeshima dos not expressly disclose a control station mode portion configured to cause the terminal which has been operating as the substitute control station to operate as the control station, unless the detection portion newly detects a control frame issued by the control station before a predetermined second time period elapses after the substitute frame has been started to be issued, wherein the issuance portion stops issuing the substitute frame when the detection portion newly detects the control frame before the predetermined second time period elapses after the substitute frame has been started to be issued. However the limitation would be rendered obvious in view of the teachings of Moriguchi et al. USP (6,680,903)

Moriguchi discloses in a network system in which a network includes a master node having a unique node identifier and either one or a plurality of slave nodes each having

a unique node identifier, and the slave nodes includes at least one candidate node for an alternative master node, said network system being a master-slave network system, the candidate node which can perform communication normally, when detecting a failure at the master node, starts operation as the alternative master node (*i.e.*, ***(substitute control station which periodically issues substitute frames)***) after waiting time (*i.e.*, ***predetermined first time period elapses***) according to the unique node identifier elapses, the candidate node which can perform communication normally, when detecting return of the master node during the waiting time (*i.e.*, ***predetermined second time period***), returns to operation of the slave node, (**see Col. 6 lines 19-35**)

Moriguchi suggests depending on whether a failure occurs at a master node or not, an alternative master node (*i.e.*, ***substitute control station***) is sometimes selected when unnecessary which adversely affects operation of the network, (**see Col. 2 lines 49-61**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the method of Maeshima, to have an issuance portion stop issuing a substitute frame when a control frame is newly detected before a predetermined second time period elapses after the substitute frame has been started to be issued, by including the teachings of Moriguchi who discloses, a control station mode portion configured to cause a node to operate as an alternative master node after a first time period elapses in a master slave network system, and returning to operating as a slave

node when detecting the return of the master before a second predetermined time period elapses, within the teachings of Maeshima who discloses detecting a control frame, which is periodically transmitted from a control station, the control frame indicating a time period in which access to the communication medium is permitted, an issuance portion configured to periodically issue a substitute frame, created by using the control information in the control frame most recently detected and including the same information as the control information, when the control frame is not newly detected before a predetermined first time period elapses after the control frame has been most recently detected, because Moriguchi suggests that an alternative master node can be unnecessarily selected which adversely affects operation of the network.

Regarding Claim 7, the combination of Maeshima in view of Moriguchi discloses the terminal according to claim 1, wherein the control station mode portion (**see Fig. 2 Items 21A, 21B**) collects information required for the terminal to operate as a control station from another terminal, (**Maeshima, See Para [0040]**).

Regarding Claim 8, the combination of Maeshima in view of Moriguchi disclose the terminal according to claim 6, wherein the mode issuance portion issues a reset signal to collect information required for the terminal to operate as a control station from another terminal, (**Maeshima, see Para [0007]**).

Regarding Claim 9, the combination of Maeshima in view of Moriguchi disclose the terminal according to claim 1, further comprising: a transmission portion (**Maeshima, See Fig. 2 Items 22A,22B**) configured to access the communication medium (**Maeshima, Para [0005] & [0045]**), in accordance with the control information contained in a previously received detected control frame (**Maeshima, See Fig 2 Items 21A,21B**), when the control frame is not newly detected before the predetermined first time period elapse after the control frame has been most recently detected by the detection portion, (**Referring to Fig. 2, Maeshima illustrates Items 22A, 22B manage transmission for medium access using the management information stored in Items 21A,21B, when an inconvenience (i.e., control frame not received) in the master control station occurs, see Para [0039-0044] & [0080-0082]**)

Regarding Claim 12, the combination of Maeshima in view of Moriguchi, disclose the terminal according to claim 1, wherein a candidate terminal which transmits the substitute frame is previously designated by the control station (**Maeshima, Para [0011]**), and predetermined first time period used when the terminal is designated as the candidate terminal, is shorter than the predetermined first time period used when the terminal is not designated as the candidate terminal, (**Maeshima, i.e., each designated candidate terminal (i.e., priority order master control station) contain different stand-by times, See Para [0078] & [0012-0013]**).

Regarding Claim 13, the combination of Maeshima in view of Moriguchi, disclose the terminal according to claim 12, wherein the control station gives the candidate terminal a priority (**Maeshima, see Para [0047]**), and a length of the predetermined first time period is determined in accordance with the priority, (**Maeshima, See Para [0012] i.e., each priority order receives different standby times (i.e., length)**).

Regarding Claim 16, the combination of Maeshima in view of Moriguchi disclose the terminal according to claim 1, wherein an identifier for the control station is contained in the control frame, (**Maeshima, See Fig. 3 “Control Information Transmission Region” & Para [0045]**)

Regarding Claim 17 the combination of Maeshima in view of Moriguchi disclose the terminal according to claim 16, wherein the terminal operates as the control station when an identifier for the terminal is contained in the substitute frame, (**See Fig. 3 “Control Information Transmission Region” & Para [0045-0046]**).

Regarding Claim 18, Maeshima discloses a communication method executed by a terminal (**see Fig. 1, terminals 100-107**), used in a communication system comprising a control station and a plurality of terminals (**see Fig. 1**), each of the terminals operable to access a communication medium (**see Para [0038]**) in accordance with a control

frame (see, **Fig. 3**) issued by the control station, and capable of substituting for the control station (see **Para [0047] lines 1-7**), the communication method comprising:

detecting the control frame (Referring to **Fig. 3**, Maeshima illustrates a control frame transmitted from a master control station to slave terminals (see **Para [0045] lines 8-14**) where in the instance a control frame is not detected (i.e., inconvenience) from the master control frame, the slave terminals are capable of becoming the master control station (see **Para [0013]**) which means each of the terminals must be able to detect the control frame periodically , See **Para [0087] lines 4-7 & Fig. 15 step S21**).

which is periodically transmitted from the control station, (see **Para [0005] & Para [0078] lines 6-12**),

the control frame containing control information indicating a time period in which access to the communication medium is permitted, (see **Para [0005] & [0045-0046]**)

periodically issuing a substitute frame created by using the control information contained in the control frame most recently detected and including the same information as the control information, causing the terminal to operate as a substitute control station, which guarantees access of the plurality of terminals to the

communications medium, when the control frame is not newly detected before a predetermined first time period elapses (see Fig. 16, step S40) after the control frame has been most recently detected by the detection portion; (See Para [0047-0048] & Para [0080-0082] i.e., when it is determined that the stand-by time (i.e., *predetermined first time period*) registered in the station has elapsed in the determining of step S40, an operation necessary as the central control station is performed. Specifically periodic transmission of the descending management information (i.e., *substitute fame issued periodically*) is started to carry out the management of information transmission (i.e., *control fame most recently detected*) in the network at the station).

Maeshima does not disclose causing the terminal, which has been operating as the substitute control station to operate as the control station, unless the control frame issued by the control station is newly detected before a predetermined second time period elapses after the substitute frame has been started to be issued wherein the periodic issuing of the substitute frame stops when the control frame is newly detected before the predetermined second time period elapses after the substitute frame has been started to be issued. However the limitation would be rendered obvious in view of the teachings of Moriguchi et al. USP (6,680,903)

Moriguchi discloses in a network system in which a network includes a master node having a unique node identifier and either one or a plurality of slave nodes each having a unique node identifier, and the slave nodes includes at least one candidate node for an alternative master node, said network system being a master-slave network system, the candidate node which can perform communication normally, when detecting a failure at the master node, starts operation as the alternative master node (*i.e.*, ***(substitute control station which periodically issues substitute frames)***) after waiting time (*i.e.*, ***predetermined first time period elapses***) according to the unique node identifier elapses, the candidate node which can perform communication normally, when detecting return of the master node during the waiting time (*i.e.*, ***predetermined second time period***), returns to operation of the slave node, (see Col. 6 lines 19-35)

Moriguchi suggests depending on whether a failure occurs at a master node or not, an alternative master node (*i.e.*, ***substitute control station***) is sometimes selected when unnecessary which adversely affects operation of the network, (see Col. 2 lines 49-61)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the method of Maeshima, to stop issuing a periodic substitute frame when a control frame is newly detected before a predetermined second time period elapses after the substitute frame has been started to be issued, by including the teachings of Moriguchi who discloses, a control station mode portion configured to cause a node to

operate as an alternative master node after a first time period elapses in a master slave network system, and returning to operating as a slave node when detecting the return of the master before a second predetermined time period elapses, within the teachings of Maeshima who discloses detecting a control frame, which is periodically transmitted from a control station, the control frame indicating a time period in which access to the communication medium is permitted, periodically issuing a substitute frame, created by using the control information in the control frame most recently detected and including the same information as the control information, when the control frame is not newly detected before a predetermined first time period elapses after the control frame has been most recently detected, because Moriguchi suggests that an alternative master node can be unnecessarily selected which adversely affects operation of the network.

Regarding Claim 19, Maeshima discloses an integrated circuit (**see Para [0004]**) for use in a terminal, used in a communication system comprising a control station and a plurality of terminals (**see Fig. 1**), each of the terminals operable to access a communication medium (**see Para [0038]**) in accordance with a control frame (**see, Fig. 3**) issued by the control station, and capable of substituting for the control station (**see Para [0047] lines 1-7**), the integrated circuit comprising:

a detection portion configured to detect, from frames (**see Fig. 3**) received by a transmission and reception unit (**see Fig. 2, 26A 26B & Para [0039-0044]**) of the

terminal, the control frame (**Referring to Fig. 3, Maeshima illustrates a control frame transmitted from a master control station to slave terminals (see Para [0045] lines 8-14) where in the instance a control frame is not detected (i.e., inconvenience) from the master control frame, the slave terminals are capable of becoming the master control station (see Para [0013]) which means each of the terminals must be able to detect the control frame periodically, See Para [0087] lines 4-7 & Fig. 15 step S21).**

which is periodically transmitted from the control station (**see Para [0005] & Para [0078] lines 6-12**), the control frame containing control information indicating a time period in which access to the communication medium is permitted (**see Para [0005] & [0045-0046]**)

an issuance portion configured to periodically issue a substitute frame created by using the control information contained in the control frame most recently detected and including the same information as the control information, and further configured to cause the terminal to operate as a substitute control station, which guarantees access of the plurality of terminals to the communication medium, and cause the transmission and reception unit to transmit the substitute frame, when the control frame is not newly detected before a predetermined first time period elapses (**see Fig. 16, step S40**) after the control frame has been most recently detected by the detection portion and

transmitting the substitute frame to the transmission and reception unit (**See Para [0047-0048] & Para [0080-0082] i.e., when it is determined that the stand-by time (i.e., *predetermined first time period*) registered in the station has elapsed in the determining of step S40, an operation necessary as the central control station is performed. Specifically periodic transmission of the descending management information (i.e., *substitute fame issued periodically*) is started to carry out the management of information transmission (i.e., *control fame most recently detected*) in the network at the station).**

Maeshima does not disclose a control station mode portion configured to cause the terminal which has been operating as the substitute control station to operate as the control station, unless the detection portion newly detects a control frame issued by the control station before a predetermined second time period elapses after the substitute frame has been started to be issued, wherein the issuance portion stops issuing the substitute frame when the detection portion newly detects the control frame before the predetermined second time period elapses after the substitute frame has been started to be issued, however the limitation would be rendered obvious in view of the teachings of Moriguchi et al. USP (6,680,903)

Moriguchi discloses in a network system in which a network includes a master node having a unique node identifier and either one or a plurality of slave nodes each having

a unique node identifier, and the slave nodes includes at least one candidate node for an alternative master node, said network system being a master-slave network system, the candidate node which can perform communication normally, when detecting a failure at the master node, starts operation as the alternative master node (*i.e.*, ***(substitute control station which periodically issues substitute frames)***) after waiting time (*i.e.*, ***predetermined first time period elapses***) according to the unique node identifier elapses, the candidate node which can perform communication normally, when detecting return of the master node during the waiting time (*i.e.*, ***predetermined second time period***), returns to operation of the slave node, (**see Col. 6 lines 19-35**)

Moriguchi suggests depending on whether a failure occurs at a master node or not, an alternative master node (*i.e.*, ***substitute control station***) is sometimes selected when unnecessary which adversely affects operation of the network, (**see Col. 2 lines 49-61**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the method of Maeshima, to have an issuance portion stop issuing a substitute frame when a control frame is newly detected before a predetermined second time period elapses after the substitute frame has been started to be issued, by including the teachings of Moriguchi who discloses, a control station mode portion configured to cause a node to operate as an alternative master node after a first time period elapses in a master slave network system, and returning to operating as a slave

node when detecting the return of the master before a second predetermined time period elapses, within the teachings of Maeshima who discloses detecting a control frame, which is periodically transmitted from a control station, the control frame indicating a time period in which access to the communication medium is permitted, an issuance portion configured to periodically issue a substitute frame, created by using the control information in the control frame most recently detected and including the same information as the control information, when the control frame is not newly detected before a predetermined first time period elapses after the control frame has been most recently detected, because Moriguchi suggests that an alternative master node can be unnecessarily selected which adversely affects operation of the network.

Regarding Claim 20, Maeshima discloses a control method executed by an integrated circuit (**see Para [0004]**) for use in a terminal used in a communication system comprising a control station and a plurality of terminals (**see Fig. 1**), each of the terminals operable to access a communication medium (**see Para [0038]**) in accordance with a control frame (**see Fig. 3**) issued by the control station, and capable of substituting for the control station (**see Para [0047] lines 1-7**), the control method comprising:

detecting, from the frames received by a transmission and reception unit (**see Fig. 2, 26A 26B & Para [0039-0044]**) of the terminal, the control frame, (**Referring to Fig. 3, Maeshima illustrates a control frame transmitted from a master control station to**

slave terminals (see Para [0045] lines 8-14) where in the instance a control frame is not detected (i.e., inconvenience) from the master control frame, the slave terminals are capable of becoming the master control station (see Para [0013]) which means each of the terminals must be able to detect the control frame periodically, See Para [0087] lines 4-7 & Fig. 15 step S21).

which is periodically transmitted from the control station (see Para [0005] & Para [0078] lines 6-12), the control frame containing control information indicating a time period in which access to the communication medium is permitted, (see Para [0005] & [0045-0046])

periodically issuing a substitute frame, created by using the control information contained in the control frame most recently detected and including the same information as the control information, causing the terminal to operate as a substitute control station, which guarantees access of the plurality of terminals to the communication medium, and causing the transmission and reception unit to transmit the substitute frame, when the control frame is not newly detected before a predetermined first time period elapses (see Fig. 16, step S40) after the control frame has been most recently detected by the detection portion over (See Para [0047-0048] & Para [0080-0082] i.e., when it is determined that the stand-by time (i.e., *predetermined first time period*) registered in the station has elapsed in the determining of step S40,

an operation necessary as the central control station is performed. Specifically periodic transmission of the descending management information (*i.e., substitute fame issued periodically*) is started to carry out the management of information transmission (*i.e., control fame most recently detected*) in the network at the station).

Maeshima does not disclose causing the terminal which has been operating as the substitute control station to operate as the control station, unless the control frame issued by the control station is newly detected before a predetermined second time period elapses after the substitute frame has been started to be issued, wherein the periodic issuing of the substitute frame stops when the control frame is newly detected before the predetermined second time period elapses after the substitute frame has been started to be issued, however the limitation would be rendered obvious in view of the teachings of Moriguchi et al. USP (6,680,903)

Moriguchi discloses in a network system in which a network includes a master node having a unique node identifier and either one or a plurality of slave nodes each having a unique node identifier, and the slave nodes includes at least one candidate node for an alternative master node, said network system being a master-slave network system, the candidate node which can perform communication normally, when detecting a failure at the master node, starts operation as the alternative master node (*i.e.,*

(substitute control station which periodically issues substitute frames) after waiting time ***(i.e., predetermined first time period elapses)*** according to the unique node identifier elapses, the candidate node which can perform communication normally, when detecting return of the master node during the waiting time ***(i.e., predetermined second time period)***, returns to operation of the slave node, **(see Col. 6 lines 19-35)**

Moriguchi suggests depending on whether a failure occurs at a master node or not, an alternative master node ***(i.e., substitute control station)*** is sometimes selected when unnecessary which adversely affects operation of the network, **(see Col. 2 lines 49-61)**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the method of Maeshima, to stop issuing a periodic substitute frame when a control frame is newly detected before a predetermined second time period elapses after the substitute frame has been started to be issued, by including the teachings of Moriguchi who discloses, a control station mode portion configured to cause a node to operate as an alternative master node after a first time period elapses in a master slave network system, and returning to operating as a slave node when detecting the return of the master before a second predetermined time period elapses, within the teachings of Maeshima who discloses detecting a control frame, which is periodically transmitted from a control station, the control frame indicating a time period in which access to the communication medium is permitted, periodically issuing a substitute frame, created by

using the control information in the control frame most recently detected and including the same information as the control information, when the control frame is not newly detected before a predetermined first time period elapses after the control frame has been most recently detected, because Moriguchi suggests that an alternative master node can be unnecessarily selected which adversely affects operation of the network.

Regarding Claim 21, the combination of Maeshima in view of Moriguchi, disclose the terminal according to claim 1, further comprising a control frame memory portion **(Maeshima, see Fig. 2 Items 21A, 21B)** configured to store the control information contained in the control frame, **(Maeshima, See Para [0040])**

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maeshima et al US (2002/0032025) in view of Moriguchi et al. USP (6,680,903) as applied to claim 1 above, and further in view of Kita et al. (US 2003/0054821).

Regarding Claim 3, the combination of Maeshima in view of Moriguchi disclose the terminal according to claim 1, wherein when the detection portion detects, before the predetermined second time period elapses **(Moriguchi, see Col. 6 lines 19-35)** after the substitute frame has been started to be issued, **(Maeshima, see Para [0047-0048])**

a request frame containing information representing a request for allocating a transmission band in which another terminal performs transmission to the control station, **(Maeshima, see Para [0074])** the issuance portion issues a response frame containing information **(Maeshima, See Para [0047-0048])**

However the combination of Maeshima in view of Moriguchi, do not disclose the issuance portion issuing a response frame indicating that the request is rejected. However the limitation is known in the art of communications by evidence of Kita et al. (US 2003/0054821).

Kita teaches a master device has an option of rejecting or accepting a request from a slave device **(see Fig. 1 & Para [0021-0028])**.

(Kita teaches there is a need to provide a technology capable of simply configuring a wireless communication network that ensures security by having a Manager (i.e., master) implement a search module for a processing device for a predetermined period, **see Para [0037-0039])**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to reject a request frame from another device as taught by Kita, within the system of Maeshima view of Moriguchi, because the teaching lies in Kita to ensure network security.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maeshima et al US (2002/0032025) in view of Moriguchi et al. USP (6,680,903) as applied to claim 1 above, and further in view of Spartz et al. (US 2004/0002338).

Regarding Claim 4, the combination of Maeshima in view of Moriguchi disclose the terminal according to claim 1, wherein when the detection portion detects, before the predetermined second time period elapses (**Moriguchi, see Col. 6 lines 19-35**) after the substitute frame has been started to be issued, (**Referring to Fig. 3, Maeshima illustrates a control frame transmitted from a master control station to slave terminals (see Para [0045] lines 8-14) where in the instance a control frame is not detected (i.e., inconvenience) from the master control frame, the slave terminals are capable of becoming the master control station (see Para [0013]) which means each of the terminals must be able to detect the control frame periodically, See Para [0080-0082], [0087] lines 4-7 & Fig. 15 step S21**)

a request frame containing information representing a request for allocating a transmission band in which another terminal performs transmission to the control station, (**Maehsima, see Para [0074]**)

However Maeshima in view of Moriguchi does not disclose the issuance portion issuing no response to the request from another slave terminal. However the limitation is known in the art of communications by evidence of Spartz et al. (US 2004/0002338).

(Spartz teaches a base station (i.e., **Master control station**) may ignore (i.e., **no response**) the request of a mobile station (i.e., **slave station**) for establishing a communication link, **see Fig. 5 & Para [0003]**)

(Spartz teaches a need to provide communication services from a base station operating in accordance with an older release of the standard to an updated mobile station, **see Para [0002]**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to issue no response to a request as taught by Spartz, within the teachings of

Maeshima in view of Moriguchi, because the teaching lies in Spartz to provide efficient communication services between a device and base station.

6. Claims 10-11 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeshima et al US (2002/0032025) in view of Moriguchi et al. USP (6,680,903) as applied to claim 1 above, and further in view of Isumi (USP 5,815,816)..

Regarding Claim 10, the combination of Maeshima in view of Moriguchi, disclose the terminal according to claim 1, wherein, when the control frame is not newly detected before the predetermined first time period elapses after the control frame has been most recently detected by the detection portion, the issuance portion transmits the substitute frame (see Fig. 16, step S40 & Para [0080-0082])

(Maeshima teaches a problem occurs when only one slave station is prepared to become the master control station and the original master control station that shares the same power supply with the slave station both experience an inconvenience simultaneously, See Para [0008]).

The combination of Maeshima in view of Moriguchi do not disclose the issuance portion performing a competition with another terminal, and acquiring access to the

communication medium as a result of the competition, however the limitation is known in the art of communications by evidence of Isumi (USP 5,815,816).

Isumi discloses performing a competition with another terminal and acquire access to the communication medium as a result, **(See Col. 14 lines 30-55)**.

Isumi teaches there is a need for digital mobile telecommunications systems which have high extensibility to be utilized, **(See Col. 1 lines 35-52)**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to perform a competition with another terminal and acquire access to the communication medium as a result of the competition as taught by Isumi, within the teachings of Maeshima in view of Moriguchi, because the teaching lies in Isumi to utilize telecommunication systems which have high extensibility.

Regarding Claim 11, the combination of Maeshima in view of Moriguchi, and further in view of Isumi, disclose the terminal according to claim 10, wherein a candidate terminal which transmits the substitute frame is previously designated and given a priority by the control station, **(Maeshima, Para [0011])**

the competition is performed such that a terminal having a higher priority has a higher probability of acquiring the access right to access the communication medium, (**Isumi, Col. 14 lines 41-47**).

Regarding Claim 14, the combination of Maeshima in view of Moriguchi, and further in view of Isumi, disclose the terminal according to claim 11, wherein the control station designates the candidate terminal based on information about a communication state of a terminal in a network, (**Maeshima, see Para [0049], communication state i.e., "electric power, error rate or the like"**).

Regarding Claim 15, the combination of Maeshima in view of Moriguchi, and further in view of Isumi, disclose the terminal according to claim 11, wherein the designation of the terminal as the candidate terminal is released, when the control station designates another terminal as the candidate terminal, (**Maeshima, See Para [0059] i.e., terminal 105 is selected as candidate terminal, while terminal 103 is released in priority order**)

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADNAN BAIG whose telephone number is (571) 270-7511. The examiner can normally be reached on Mon-Fri 7:30m-5:00pm eastern Every other Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ADNAN BAIG/
Examiner, Art Unit 2461
/Huy D Vu/

Supervisory Patent Examiner, Art Unit 2461